

## M03 Steering Knob

These controls have the smooth yet responsive feel that only comes with watchmaker precision build and highest quality parts. The optimum resistance has been designed into the product to give the perfect sense of control.

Watch maker precision:

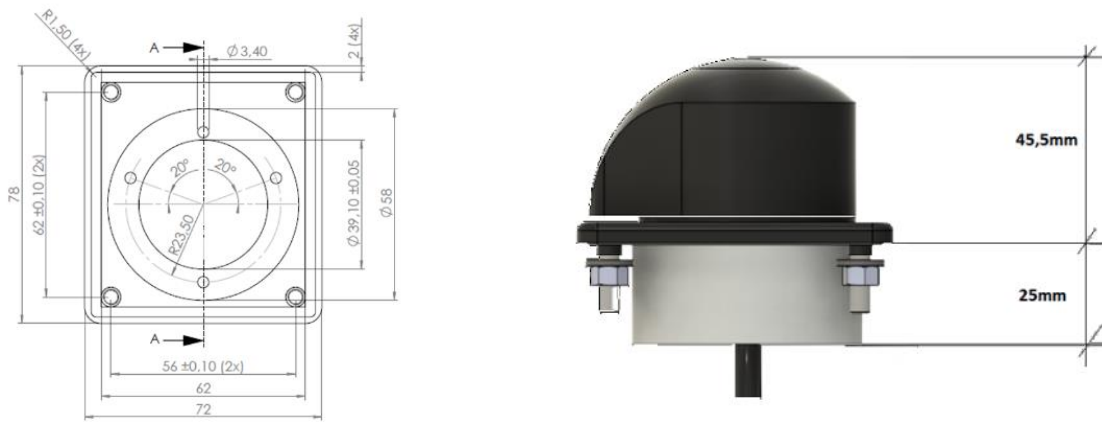
- **Precision control** – The consistent smooth friction, and exact detents will ensure effortless control over the vessel.
- **Premium look** – Brushed black anodized aluminum finish on panel plate.
- **Anodized knob** – Anodized knob with dimmable LED illumination, or fluorescent direction index symbol.
- **Durable** – Durable hall-effect sensor for precision and longevity.

Other features making M03 irresistible:

- Center detent
- Spring return or friction hold
- Made in Sweden



## Standard dimensions



## Specifications

Handle movement	+/-60°
Indicator	Illuminated top index
Detent	On zero
Materials	Black anodized aluminum, Top index PMMA White (Black on other options)
Sensors	Hall effect sensor / Potentiometer
Enclosure	IP66 from panel and above
LED	Green, voltage dimmable LED 8-24VDC
Connector	500mm cable with D-Sub 9-pole male attached
Sensor	Hall- effect Sensor 5VDC regulated supply (see diagrams) Potentiometer 2x10kΩ (see diagrams)
Standard versions:	<b>M03-H</b> Hall-effect sensor, friction hold, with center detent <b>M03-P</b> Potentiometer sensor, friction hold, with center detent <b>M03SR-H</b> Hall-effect sensor, spring return <b>M03SR-P</b> Potentiometer sensor, spring return
Other options	White or red LED illumination, four grip knob.

## Pin Configuration

### Dual Independent Hall-effect sensors

1. In-A +5VDC (Red)
2. GND-A (Black)
3. Out-A (STB White)
4. In-B +5VDC (Green)
5. GND-B (Yellow)
6. Out-B (Blue)
8. +24V LED (Green)
9. GND LED (Black)

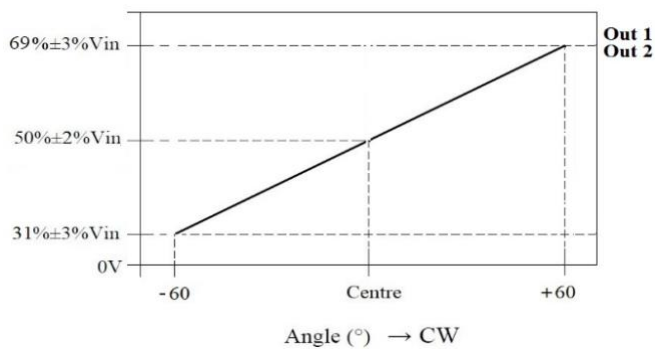
Wiring diagram 441003

### Potentiometer

1. +5V (A) (Blue)
2. OUT (A) (Gray)
3. GND (A) (White)
4. +5V (B) (Purple)
5. OUT (B) (Pink)
6. GND (B) (Brown)
8. +24V LED (Green)
9. GND LED (Black)

Wiring diagram 441002

### Potentiometer



### Hall-effect

